



**[4910-13]**

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2012-0337; Directorate Identifier 2010-SW-090-AD]**

**RIN 2120-AA64**

**Airworthiness Directives; Bell Helicopter Textron Canada Helicopters**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** We propose to adopt a new airworthiness directive (AD) for the Bell Helicopter Textron Canada Limited (BHTC) Model 407 helicopters. This proposed AD is prompted by a review of the tailboom-attachment installation, which revealed that the torque value of the bolts specified in the BHTC Model 407 Maintenance Manual and applied during manufacturing was incorrect and exceeded the torque range recommended for the bolts. This proposed AD would require you to replace tailboom-attachment hardware (attachment hardware), and perform initial and recurring determinations of the torque on the nuts of the tailboom-attachment bolts (bolts) at all four attachment locations. The actions required by this proposed AD are intended to prevent an over-torque of a bolt, bolt failure, loss of the tailboom, and subsequent loss of control of the helicopter.

**DATES:** We must receive comments on this proposed AD by [insert date 60 days after date of publication in the FEDERAL REGISTER].

**ADDRESSES:** You may send comments by any of the following methods:

- Federal eRulemaking Docket: Go to <http://www.regulations.gov>. Follow the online instructions for sending your comments electronically.

- Fax: 202-493-2251.

- Mail: Send comments to the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590-0001.

- Hand Delivery: Deliver to the “Mail” address between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

**EXAMINING THE AD DOCKET:** You may examine the AD docket on the Internet at <http://www.regulations.gov> or in person at the Docket Operations Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the economic evaluation, any comments received, and other information. The street address for the Docket Operations Office (telephone 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

For service information identified in this proposed AD, contact Bell Helicopter Textron Canada Limited, 12,800 Rue de l’Avenir, Mirabel, Quebec J7J1R4, telephone (450) 437-2862 or (800) 363-8023, fax (450) 433-0272, or at <http://www.bellcustomer.com/files/>. You may review copies of the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

**FOR FURTHER INFORMATION CONTACT:** Sharon Miles, Aerospace Engineer, FAA, Regulations and Policy Group, 2601 Meacham Blvd., Fort Worth, Texas 76137; telephone: (817) 222-5122; fax: (817) 222-5961; e-mail: sharon.y.miles@faa.gov.

**SUPPLEMENTARY INFORMATION:**

**Comments Invited**

We invite you to participate in this rulemaking by submitting written comments, data, or views. We also invite comments relating to the economic, environmental, energy, or federalism impacts that might result from adopting the proposals in this document. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. To ensure the docket does not contain duplicate comments, commenters should send only one copy of written comments, or if comments are filed electronically, commenters should submit only one time.

We will file in the docket all comments that we receive, as well as a report summarizing each substantive public contact with FAA personnel concerning this proposed rulemaking. Before acting on this proposal, we will consider all comments we receive on or before the closing date for comments. We will consider comments filed after the comment period has closed if it is possible to do so without incurring expense or delay. We may change this proposal in light of the comments we receive.

**Discussion**

Transport Canada, which is the aviation authority for Canada, has issued AD No. CF-2010-33, dated September 30, 2010 (AD CF-2010-33), to correct an unsafe condition for the BHTC Model 407 helicopter, serial numbers (S/Ns) 53000 through 53990.

Transport Canada advises that a review of the tailboom-attachment installation determined that the torque value of the bolts specified in the BHTC Model 407 Maintenance Manual and applied during manufacturing exceeded the torque range recommended for the bolts. Transport Canada states that this situation, if not corrected, could lead to a bolt failure, detachment of the tailboom, and subsequent loss of control of the helicopter.

These helicopters have been approved by the aviation authority of Canada and are approved for operation in the United States. Pursuant to our bilateral agreement with Canada, Transport Canada, its technical representative, has notified us of the unsafe condition described in its AD.

#### **FAA's Determination**

We are proposing this AD because we evaluated all known relevant information and determined that an unsafe condition exists and is likely to exist or develop on other products of the same type design.

#### **Related Service Information**

BHTC has issued Alert Service Bulletin No. 407-10-93, Revision A, dated August 30, 2010 (ASB), which specifies installing new attachment hardware with a reduced torque value. This ASB specifies performing a torque check of the newly installed bolts and nuts every one to five flight hours until torque stabilizes at all locations, and thereafter at intervals not to exceed 300 flight hours. Transport Canada classified this ASB as mandatory and issued AD CF-2010-33 to ensure the continued airworthiness of these helicopters.

## **Proposed AD Requirements**

This proposed AD would require for helicopters with 7000 hours or less time-in-service (TIS), at the next 600 hours scheduled inspection, or 90 days, whichever comes first; and for helicopters with more than 7000 hours TIS, within 150 hours TIS or 90 days, whichever comes first, the following actions:

- Remove the left upper bolt, washers, and nut. Install a new bolt, part number (P/N) NAS627-30; washers, P/N 140-007-29S25E6 and P/N NAS1149G0732P; and new nut, P/N 42FLW-720. Repeat this action for the opposite right upper attachment hardware.
- Remove the left lower bolt, washers, and nut. Install a new bolt, P/N NAS626-26; washer, P/N 140-007-25S22E6, washer(s), P/N NAS1149G0663P; and new nut, P/N 42FLW-624. Repeat this action for the opposite right lower attachment hardware.
- After installation of the new attachment hardware, at intervals of not less than 1 hour TIS but not exceeding 5 hours TIS, determine the torque of each nut until torque stabilizes at each attachment location. Thereafter, determine the torque of each nut at recurring intervals not to exceed 300 hours TIS. If the proper torque has not been retained since the last torquing, remove and inspect the tailboom assembly for damage, corrosion, improper assembly, and condition. If the tailboom assembly is airworthy, replace the attachment hardware and determine that the torque has stabilized at each attachment location. Replace any unairworthy tailboom assembly with an airworthy tailboom assembly before further flight.

## **Differences between this Proposed AD and the Transport Canada AD**

The differences between this proposed AD and the Transport Canada AD are as follows:

- This proposed AD uses the term “hours time-in-service” to describe compliance times, and the Transport Canada AD uses the term “air time”;
- For helicopters with 7000 hours or less TIS, the Transport Canada AD requires accomplishing the actions in the AD at the next scheduled 600-hour inspection or by December 31, 2010, whichever occurs first. This proposed AD requires accomplishing the actions at the next scheduled 600-hour inspection or 90 days, whichever occurs first.
- This proposed AD uses the term “determine the torque” when referring to the torque on a nut, and the Transport Canada AD uses the term “perform a torque check.”

## **Costs of Compliance**

We estimate that this proposed AD would affect 552 helicopters of U.S. registry. We estimate it would take about 2.0 work-hours per helicopter to replace the hardware and 1.0 work-hour per helicopter to determine the recurring torque value at an average labor rate of \$85 per work hour. Required parts would cost about \$498 per helicopter. Based on these figures, we estimate for the first year the total cost per helicopter to be \$923, and the total cost impact on U.S. operators to be \$509,496. This estimated total cost assumes attachment hardware will be replaced on all affected helicopters, the torque will be considered stabilized after determining the torque value once, and the 300-hour TIS recurring torque determination will be accomplished twice a year.

## **Authority for This Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

## **Regulatory Findings**

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed, I certify this proposed regulation:

1. Is not a "significant regulatory action" under Executive Order 12866;
2. Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);

3. Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction; and

4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared an economic evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket.

#### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

#### **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

#### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new Airworthiness Directive (AD):

**BELL HELICOPTER TEXTRON CANADA (BHTC):** Docket No. FAA-2012-0337; Directorate Identifier 2010-SW-090-AD.

#### **(a) Applicability.**

BHTC Model 407 helicopters, serial numbers 53000 through 53990, certificated in any category.



**(b) Unsafe Condition.**

This proposed AD defines the unsafe condition as an incorrect torque value of the tailboom attachment bolt (bolt) specified in the BHTC Model 407 Maintenance Manual and applied during manufacturing, which exceeds the torque range recommended for the bolts. This condition could result in an over-torque of the bolt, bolt failure, loss of the tailboom, and subsequent loss of control of the helicopter.

**(c) Compliance.**

You are responsible for performing each action required by this AD within the specified compliance time unless accomplished previously.

**(d) Required Actions.**

(1) For helicopters with 7000 hours or less time-in-service (TIS), at the next 600 hours scheduled inspection, or 90 days, whichever comes first; and for helicopters with more than 7000 hours TIS, within 150 hours TIS or 90 days, whichever comes first, replace the tailboom-attachment hardware (attachment hardware) as follows:

(i) Remove the left upper bolt, washers, and nut.

(ii) Install a new bolt, part number (P/N) NAS627-30; washer, P/N 140-007-29S25E6; washer(s), P/N NAS1149G0732P; and new nut, P/N 42FLW-720 in accordance with paragraphs 2.a) through paragraph 3.e) of the “Accomplishment Instructions: Replacement of tailboom attachment bolts and nuts” section and Figure 2 in the BHTC Alert Service Bulletin No. 407-10-93, Revision A, dated August 30, 2010 (ASB).

(iii) Remove the opposite right upper bolt, washers, and nut, and accomplish the requirements in paragraph (d)(1)(ii) of this AD.

(iv) Remove the left lower bolt, washers, and nut.

(v) Install a new bolt, (P/N) NAS626-26; washer, P/N 140-007-25S22E6; washer(s), P/N NAS1149G0663P; and new nut, P/N 42FLW-624 in accordance with paragraphs 6.a) through 7.e) of the “Accomplishment Instructions: Replacement of tailboom attachment bolts and nuts” section and Figure 2 in the ASB.

(vi) Remove the right lower bolt, washers, and nut, and accomplish the requirements in paragraph (d)(1)(v) of this AD.

(2) After installation of the new attachment hardware, at intervals of not less than 1 hour TIS but not exceeding 5 hours TIS, determine the torque of each nut until the torque stabilizes at each attachment location, referring to Figure 2 of the ASB. Apply the minimum specified torque of the range, plus the minimum acceptable tare torque of 14 inch/lbs (1.58 Nm) for the upper nuts, and 9.5 inch/lbs (1.07 Nm) for the lower nuts.

(3) At intervals not to exceed 300 hours TIS, determine the torque of each of the four attachment nuts, referring to Figure 2 of the ASB. Apply the minimum specified torque of the range plus the minimum acceptable tare torque of 14 inch/lbs (1.58 Nm) for the upper nuts, and 9.5 inch/lbs (1.07 Nm) for the lower nuts. If the proper torque has not been retained since the last torque determination, remove and inspect the tailboom assembly for damage, corrosion, improper assembly, and condition. If the tailboom assembly is airworthy, replace the attachment hardware in accordance with the requirements in paragraphs (d)(1)(i) through (d)(1)(vi) and determine that the torque has stabilized in accordance with paragraph (2) of this AD. Replace any unairworthy tailboom assembly with an airworthy tailboom assembly.

**(e) Alternative Methods of Compliance (AMOC).**

(1) The Manager, Safety Management Group, FAA, may approve AMOCs for this AD. Send your proposal to: Sharon Miles, 2601 Meacham Blvd., Fort Worth, Texas 76137; telephone: (817) 222-5122; fax: 817-222-5961; e-mail: [sharon.y.miles@faa.gov](mailto:sharon.y.miles@faa.gov).

(2) For operations conducted under a Part 119 operating certificate or under Part 91, Subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office before operating any aircraft complying with this AD through an AMOC.

**(f) Additional Information.**

The subject of this AD is addressed in the Transport Canada Civil Aviation (TCCA) AD CF-2010-33, dated September 30, 2010.

**(g) Subject.**

Joint Aircraft Service Component (JASC) Code: 5302, Rotorcraft tailboom.

Issued in Fort Worth, Texas, on March 21, 2012.

Kim Smith,  
Manager, Rotorcraft Directorate,  
Aircraft Certification Service.

[FR Doc. 2012-7542 Filed 03/28/2012 at 8:45 am; Publication Date: 03/29/2012]